

What is claimed is:

1. A monopole low frequency test woofer,
comprising:
a rigid mounting plate having an acoustical
opening;
5 a monopole driver having a high mass cone and
low resonance in free air, said driver being mounted on
said mounting plate with a basket of said driver
fitting about said acoustical opening;
an inductor connected in series with said
10 monopole driver;
a rear tub attached to said mounting plate
forming an enclosure housing said monopole driver and
inductor; and
an electrical connector on said rear tub for
15 connecting said monopole driver and inductor to an
external circuit.
2. A test woofer, as set forth in claim 1,
wherein said inductor contours frequency response of
monopole driver to match frequency response of a
vehicle dipole speaker over a frequency range of
5 interest.
3. A test woofer, as set forth in claim 2,
wherein the frequency range of interest is from about
40 Hz to about 200 Hz.
4. A test woofer, as set forth in claim 1,
including a seal between said mounting plate and said
tub.
5. A test woofer, as set forth in claim 1,
wherein said rear tub is sealed to a rear surface of
said mounting plate.

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6. A test woofer, as set forth in claim 1,
wherein a top portion of a rear panel of said rear tub
is offset inward toward said mounting plate to have
lesser depth than a bottom portion of said rear tub to
5 thereby form a slot.

7. A test woofer, as set forth in claim 6,
wherein said electrical connector is positioned in said
slot.

8. A test woofer, as set forth in claim 7,
wherein said electrical connector is flush with said
lower portion of said rear panel.

9. A band limited radiating source,
comprising:

a rigid mounting plate having an acoustical
opening;

5 a monopole low frequency driver mounted on said
mounting plate with a basket of said driver fitting
about said acoustical opening;

a tub sealed to said mounting plate forming an
enclosure housing said monopole driver; and

10 an electrical connector on said tub for
connecting said monopole driver to an external circuit.

10. A band limited radiating source, as set
forth in claim 9, including an inductor connected in
series with said monopole driver.

11. A band limited radiating source, as set
forth in claim 9, wherein said monopole driver has a
frequency response range of about 40 Hz to about 200
Hz.

12. A band limited radiating source, as set forth in claim 9, including a seal between said mounting plate and said tub.

13. A band limited radiating source, as set forth in claim 9, wherein said rear tub is sealed to a rear surface of said mounting plate.

14. A band limited radiating source, as set forth in claim 9, wherein a top portion of a rear panel of said rear tub is offset inward toward said mounting plate to have lesser depth than a bottom portion of said rear tub to thereby form a slot.

15. A band limited radiating source, as set forth in claim 14, wherein said electrical connector is positioned in said slot.

16. A band limited radiating source, as set forth in claim 15, wherein said electrical connector is flush with said lower portion of said rear panel.

17. A method for determining loss in baffling due to speaker environment in a vehicle being non-ideal, comprising the steps of:

- producing a monopole low frequency test woofer
- 5 having a frequency response and resonance output matching an optimized vehicle dipole speaker;
- determining output of the vehicle dipole speaker;
- measuring output of said test woofer in said
- 10 vehicle; and
- comparing said outputs with appropriate level correction and determining frequency response difference which is the loss in baffling due to speaker environment in the vehicle.

fabricating a rigid mounting plate having an
acoustical opening;

forming a tub and sealing the tub to said
10 mounting plate thereby forming an enclosure housing
said driver; and

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20. A method, as set forth in claim 17, wherein the test woofer producing step includes attaching an inductor in series with said monopole driver.